

## **An early peek under the Palm pre's hood**

*Arik Hesseldahl*

*Preliminary analysis by iSuppli suggests Palm will spend about \$138 to build the new smartphone, almost half what it's expected to charge Sprint.*



To say Palm has a lot riding on the Pre smartphone is an understatement. Amid stiff competition from Apple (AAPL) and Research In Motion (RIMM), Palm's very survival may hinge on the success of the device, expected to reach Sprint Nextel (S) store shelves no later than June 30.

And while it's hard to predict demand for the Pre, preliminary analysis suggests Palm (PALM) will make a healthy profit from the units it does sell. Judging from a preliminary estimate by market researcher iSuppli, the Pre will cost about \$138 to build. That would amount to 46% of the \$300 iSuppli expects Palm to charge Sprint for the device; Sprint is likely to sell the handset for \$200, after a \$100 subsidy, iSuppli speculates. Palm declined to comment on iSuppli's analysis.

Announced to great fanfare amid a lot of buzz at the International Consumer Electronics Show in January, the Pre represents Palm's bid to reclaim relevance in smartphones, a category it once defined. After a successful run with the Treo family of handsets that began after it acquired Handspring in 2003, Palm has been left behind by more advanced products, including Apple's iPhone and Research In Motion's BlackBerry devices.

An i-like, multitouch-enabled display

Researchers at iSuppli typically conduct teardown analyses of popular consumer electronic devices to estimate their costs and identify key suppliers. This analysis is an estimate, however, because there is not yet a product to tear down. So far, iSuppli has been able to identify two suppliers, says iSuppli analyst Tina Teng. Chipmaker Texas Instruments (TXN) is supplying Palm with an \$11 applications chip from the so-called OMAP family of chips aimed at handsets, and wireless-chip maker Qualcomm (QCOM) is the most likely supplier of a set of wireless chips that will let the Pre run on Sprint's wireless voice and data network. Other suppliers are not definitively known.

One component that will likely attract a great deal of attention is the Pre's display. The handset sports a multitouch-enabled display, similar in some respects to that of Apple's iPhone and iPod touch. The screen and components related to it will be the primary cost-driver inside the Pre, amounting to \$39.51, or almost one-quarter of its overall components cost, Teng estimates. "Having seen the demonstrations and its features at the Consumer Electronics Show and elsewhere, we made some assumptions about what it will cost," Teng says. "The materials used on Palm's display may differ from those used on Apple's display. We also think how it works will be different at the software level."

Yet the similarities to Apple's screen caught the eye of Apple Chief Operating Officer Tim Cook, who fired a warning shot across Palm's bow during a Jan. 21 conference call by saying that Apple, which has several patents on multi-touch technology, stands "ready to suit up against anyone," it believes violate its patents.

The statement raised eyebrows, especially given that Palm Chairman Jon Rubinstein is a former Apple executive. At the time, Palm noted that it holds several "fundamental patents" on mobile technology, having built handheld devices since 1997, when it introduced the original PalmPilot. The company added that it could easily defend itself against a possible Apple lawsuit.

The bill? 56% of estimated revenue

Other Pre costs include memory. Teng believes the phone will have at least eight gigabytes of flash memory, adding \$15.96 to the materials cost. Wireless components from Qualcomm will add another \$15.41. A 3-megapixel camera, possibly supplied by Aptina, a unit of chipmaker Micron Technology (MU), is expected to cost \$12.39.

The costs of the display, applications chip, wireless components, memory chips, and the camera come to more than \$94, or about 68% of Teng's component cost estimate.

Teng has also estimated some non-hardware-related costs that Palm might incur. Licensing software and royalties on patents probably amount to \$22.61, Teng estimates. She declined to name potential recipients of patent royalties or payments for software, but likely candidates might be companies that have provided applications to be preinstalled on the device.

Add that to the estimated cost of hardware and components and you get a projected cost of \$170, or about 56% of the \$300 price at which Palm is expected to sell the device to Sprint.

Now, Palm just needs to get the handset to market. This week, Sprint ran full-page ads in several newspapers showing the Pre. Meanwhile an enthusiast Web site, everythingpre.com, reported a rumor saying that the first shipment of the device left Hong Kong on Apr. 28 aboard a UPS (UPS) plane to Louisville. There is also speculation Palm may seek to try to steal the thunder of rival Apple by releasing the Pre before the next iteration of the iPhone is announced. Apple has said it will release version 3.0 of its iPhone software by the end of June and is expected to unveil a new iPhone around the same time.

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